

**REMARKS**

Claim 11 has been amended to change its dependency so that it no longer depends on a canceled claim.

Entry of the above amendment is respectfully requested.

**Allowable Subject Matter**

Applicants note with appreciation that the Examiner indicates on the Office Action Summary that claim 4 is directed to allowable subject matter. Applicants thank the Examiner for this indication of allowable subject matter, and submit that the subject matter of the other pending claims is also allowable as follows.

**Obviousness Rejection**

On page 2 of the Office Action, claims 1-3, 5, 7-9, and 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of *AAPA* (Applicants' Admitted Prior Art) and *The Handbook of Separation Techniques for Chemical Engineers* 2nd Edition (1988).

In response, it is submitted initially that the prior art does not teach or suggest a particular precoating step like that recited in the last section of claim 1, so the present invention is not obvious for at least this reason.

Further, with respect to the Examiner's position that Applicants' argument of unexpected superiority is not supported by documentary evidence, Applicants submit herewith an

unexecuted Declaration under 37 C.F.R. § 1.132 (the executed version of the Declaration will be submitted promptly after it is received by the undersigned; in this regard, a Request for Suspension of Action for three months is being filed concurrently herewith to provide time to submit the executed Declaration and to possibly further supplement Applicants' response to the Office Action).

As shown in the sheet attached to the Declaration, Experiment No. 11 was conducted as a reference case, wherein filtering was performed without a filtering aid and only by using filtering paper, wherein the filtering paper had an absolute filtering accuracy of 10  $\mu\text{m}$ . Also, Experiment No. 10 was conducted such that filtering was performed without a filtering aid and only by using filtering paper, wherein the filtering paper had an absolute filtering accuracy of 40  $\mu\text{m}$ . As additional comparative data, Comparative Examples a-c are presented in which filtering quality data are added to the results of Examples 3, 2, and 7, respectively, as described in the specification, and Comparative Example d shows data that is newly added. As examples of the present invention, Example A is presented in which filtering quality data are added to the results of Example 1 described in the specification, and Examples B, C, D, and E show data that are newly added.

In this regard, the Declarant notes that as described in "Description of the Related Art" (see page 1, line 22 to page 2, line 5 in the present application in particular), when producing a cellulose acylate film used for a liquid crystal display device and a photosensitive material, filtration accuracy is required to be equivalent to or higher than the accuracy in a case that the filtering material (e.g., filtering paper) having an absolute filtration accuracy of approximately

0.01 mm is used. [Applicants note that the Examiner commented on this point on page 5 of the Office Action, but it is not clear to Applicants what the Examiner's point is in that comment, so Applicants would appreciate it if the Examiner could elaborate further on that comment.]

However, as can be seen from Experiment No. 11, when conducting a filtration for a high-viscosity solution (generally 100 to 400 Poise) like a cellulose acylate solution, filtration life (filtering process amount) becomes extremely short. (In the following description, filtration life and quality of Experiment No. 11 will be used as reference.) Incidentally, foreign matters larger than 10  $\mu\text{m}$  are detected in Experiment No. 11 even though a filtering paper of absolute filtration accuracy 0.01 mm (10  $\mu\text{m}$ ) is used, because the absolute filtration accuracy deteriorates in filtering a gelled liquid such as a cellulose acylate solution.

In contrast, *by performing, prior to the filtering step, a step of precoating the filtration support in a thickness of from 0.1 to 10 mm using a precoat liquid in which a filter aid having an average particle size in a range of from 1 to 150  $\mu\text{m}$  is dispersed* as recited in amended claim 1, a filtration accuracy equivalent to or higher than an accuracy of filtering using filtering material with absolute filtration accuracy of 0.01 mm can be achieved, and filtration life (filtering process amount) can be extended.

Specifically, the quality of Example C (Experiment No. 7) is substantially equivalent to the reference quality, and the quality of Examples A, B, D, and E are better than the reference quality.

In addition, filtration life (relative value when the filtration life of Example A is defined as 1.0) is significantly longer than the reference value (i.e., 0.4) in all Examples A to E.

On the other hand, Comparative Examples a to d are examples in which the condition of average particle size or precoat thickness of the present invention is not satisfied, and as can be seen from these Comparative Examples, filtering quality can be improved when the average particle size is small and precoat thickness is thick, but filtration life becomes extremely short under that condition. When the average particle size is large and precoat thickness is thin, filtration life can be extended but filtering quality extremely deteriorates.

That is, according to present claim 1, filtration accuracy equivalent to or higher than that provided by filtering material having 0.01 mm of absolute filtration accuracy can be achieved, while filtration life (filtering process amount) can be significantly improved.

As described above, the average particle size of filtering aid and precoat thickness are extremely important in improving filtering capability and filtration life, and such is not disclosed or suggested in The Handbook of Separation Techniques for Chemical Engineers, 2nd Edition (1988).

Accordingly, Applicants submit that the invention as recited in amended claim 1 is not prima facie obvious, and further it is not obvious because it provides unexpectedly superior results.

Thus, Applicants submit that the present invention is not obvious, and withdrawal of this rejection is respectfully requested.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/620,412

Attorney Docket No.: Q76591

### Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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**23373**

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Date: October 31, 2007